What is claimed is:

1. DNA plasmid (ATCC _____) designated as BL21/DE3(8,9 PST) containing the neuS gene from *escherichia coli* K92 and encoding α2,8/2,9 polysialyltransferase from *escherichia coli* K92.

2. A transformed cell having a gene encoding α2,8/2,9 polysialyltransferase from *escherichia coli* K92.

3. A process for obtaining purified α2,8/2,9 polysialyltransferase comprising the following steps:

Step A: expressing a gene encoding α2,8/2,9 polysialyltransferase within a transformed cell having said gene for producing said α2,8/2,9 polysialyltransferase; and then

Step B: isolating the α2,8/2,9 polysialyltransferase expressed is said Step A.

4. A process according to claim 3 wherein the α2,8/2,9 polysialyltransferase is from *escherichia coli* K92.

5. Purified recombinant α2,8/2,9 polysialyltransferase.

6. Purified recombinant α2,8/2,9 polysialyltransferase according to claim 5 wherein the α2,8/2,9 polysialyltransferase is from *escherichia coli* K92.

7. A method for converting a substrate of α2,8/2,9 polysialyltransferase into a product, said method comprising the step of contacting the substrate with α2,8/2,9 polysialyltransferase under conditions for promoting enzymic catalysis of a conversion

of the substrate into the product.

8. A method according to claim 7 wherein the α2,8/2,9 polysialyltransferase is from *escherichia coli* K92.

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